Electricity on the Farm

A MONTHLY MAGAZINE FOR THE UP-TO-DATE RURAL FAMILY

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OCTOBER
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GOULDS

October, 1935

Electricity on the Farm

Vol. 8, No. 10

EDITORIAL

In routine duties and chores, electricity shows to greatest advantage on the farm. In eliminating those drudgeries which formerly were considered the portion of the farmer, it has no equal.

Pumping water by hand, cleaning and filling kerosene lanterns and lamps, providing firewood for cooking, and harvesting and handling ice are a few such tasks that have been eliminated by electricity on modern farms.

But there are many other farm operations not classed as chores, where electric current saves money. For example, there's the very essential job of feed grinding. Formerly it was necessary to haul grain to the nearest elevator or mill, have it ground and then haul it home again.

When considerable livestock was being fed, the job was no mean one. And on top of this, a lot of useful time was used up.

Today, the trend is to automatic electric grinding at home; and it is a highly successful plan because of the dependability of electric current. Elsewhere in the issue is an article by Professor Gallagher on the subject. It's worth reading. Read it!

THE PUBLISHERS.

IN THIS ISSUE

Cut Feeding Costs by Grinding with Electricity

BY H. J. GALLAGHER

The fact that feed grinding can be done cheaper at home by employing the electric motor to operate burr or hammer mill grinders is sufficient to warrant its wider use. The author combines in his article on page 5 experiences of farmers who are capitalizing by this method of slicing feed grinding costs.

Improving Dairy Cows with Ultra Violet Light

BY C. C. PINK

Sunshine, so vital to all animal and plant life, can now be brought directly indoors in the form of ultra violet light and used on bleak winter days when the dairy herd cannot get outdoors. Improved health and increased production have resulted from such treatment according to reports of tests conducted. See page 8 for additional data on this interesting subject.

Brooding Chicks in Kansas

BY THOMAS A. AVERY

Electricity leads in the field of chick brooding as the experiments conducted in Kansas indicate. Poultrymen desired comparative data on the operation of oil, coal and electrically operated brooders, and the author presents the results of the tests on page 10 for your study. Elimination of the fire hazard is another factor in favor of the electric unit.

Just Now Electricity is the Modern Fuel

BY VERA B. MEACHAM

Just now is the time to be cooking with electricity, not only because it is modern, but because the conveniences bundled up in this single unit are time and labor savers. Housewives who still cling to the wood or coal range with its uncertainty and mussiness, should turn to page 11 to know what they are missing by not letting electricity do their cooking.

Miscellaneous Short Articles

A Useful Bucket Elevator, page 15; A Homemade Irrigation System, page 18.

Regular Monthly Features

Electrical Housekeeping, page 13, On the Air, page 19. Under the Chestnut Tree, page 20. Questions and Answers, page 21.

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Fig. 1. The 2 H. P. hammer mill installed on the Haynes farm in 1928 continues to give satisfactory service.

CUT FEEDING COSTS by GRINDING WITH ELECTRICITY

By H. J. GALLAGHER

THE Harvest Moon of 1935 has brightened the future of American farmers, its beneficent splendor has erased the gaunt cavernous appearance of last year's granaries. Full hay mows and huge straw stacks again become a welcome sight. Next spring when livestock start on pasture they will have the foundation of good winter feeding and will have little resemblance to the scarecrows that survived the past winter.

Good winter feeding is associated with ample

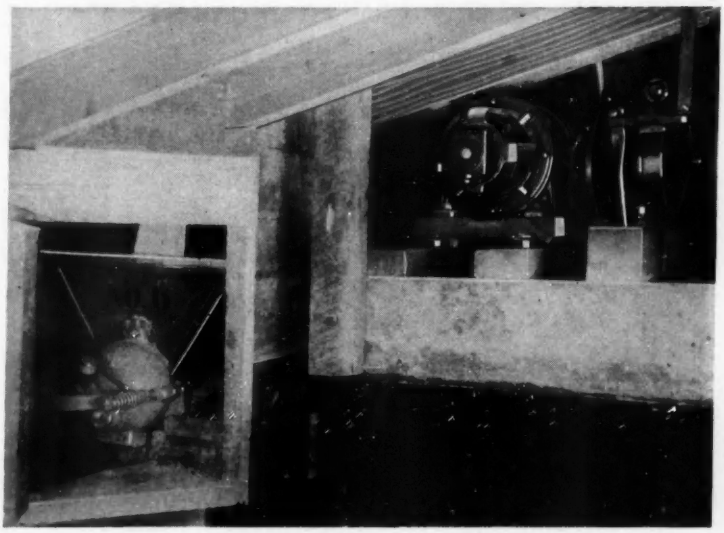

Fig. 2. Mr. Carven considers his 1 H. P. motor and grinder the pay check for all of his electric service.

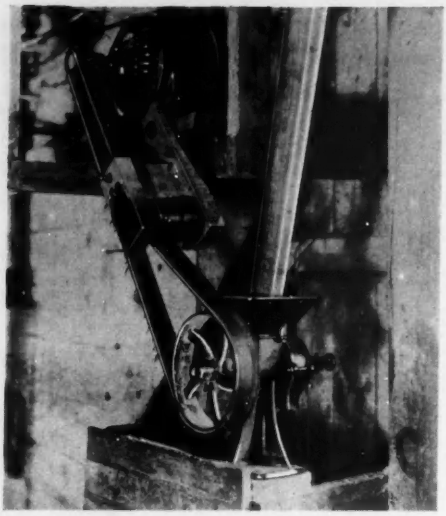

Fig. 4. A simple low-priced grinding outfit consisting of a ¾ H. P. motor and a 4½ inch burr mill. This outfit replaced a 10 inch burr mill and saved starting the tractor during the winter. It has been in use over four years grinding for 50 head of cattle on an energy consumption of 15 kw.-hrs. per ton

quantities of ground grain and grinding grain is one of the economical problems associated with good farming. How much does grinding increase the feeding value of grain? When does the cost of grinding become a profit or a loss? What are the most economical and satisfactory methods of grinding? These are questions that every farmer who feeds grain should answer to his own satisfaction.

The Agricultural Experiment Stations universally recommend the feeding of ground grain to dairy cattle, poultry and hogs. The general exceptions are (a) feed whole corn to hogs, (b) whole or cracked grains for poultry scratch feed, (c) whole grain to calves to six months of age when skimmed milk is fed in the proper amount.

Grinding of small grains, oats, barley, wheat and rye increases their feeding value and lessens losses from incomplete digestion. The advisability of grinding corn depends upon the animal to which it is fed and method of handling the excrement.

Dairy cattle and poultry generally pay the largest returns for grinding. The increased value due to grinding is about 20 per cent. From the standpoint of arithmetic it is a simple problem to determine whether grinding is conducted as a profit or a loss.

When the oats are worth 40 cents per bushel, the value of a ton of whole oats is $25.00; to increase the feeding value 20 per cent by grinding would permit a grinding cost not to exceed $5.00 per ton, or 25 cents per 100 pounds. Where the custom mill cost of grinding is 10 cents per 100 pounds the handling and transportation costs should not exceed $3.00 per ton, otherwise the grinding is done at a loss. An allowance of $3.00 per ton for handling and transportation costs seems generous until an analysis is made of the time and labor required to bag and load the grain, the cost of transportation to and from the mill, the time spent at the mill and unloading the grain at the farm. Under average conditions these costs usually exceed $3.00 per ton when grain is handled in quantities of one or more tons. Frequent trips to the mill with four or five bags increases the cost considerably.

To slice feeding costs by grinding or, in other words, to make grinding profitable, it is essential that grinding costs be reduced and the more they are reduced, the greater is the profit. Unquestionably, the most economic and most satisfactory method of grinding is by the use of electric motors operating burr or hammer mill grinders. In this respect, as in many other farming operations,

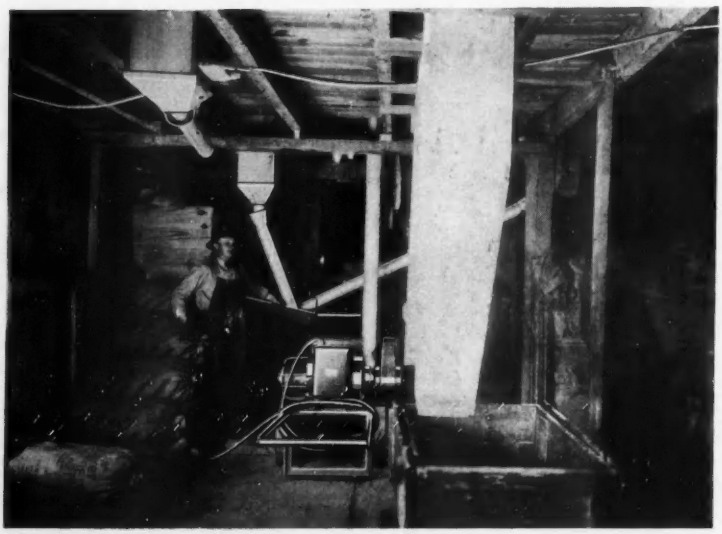

Fig. 3. The blower attachment on the mill elevates whole grain to overhead storage. The grain returns to the mill by gravity and the ground grain is elevated to overhead bins. This permits Mr. Schoff to grind large quantities at a time when desirable. Gravity conveys the ground grain to the feed truck

Fig. 6. Inclement weather adds no joys to trips to the mill, and it increases transportation costs.

the farmer with high line service has a decided advantage over his less fortunate competitor and each year more farmers are capitalizing on this advantage.

Consider the case of Ellis Haynes, Mason, Michigan, R. F. D. In 1928 Mr. Haynes first received electric service. He owns and operates 240 acres of land and has a large herd of dairy cows. One of the first electric installations on the Haynes farm was a small hammer mill grinder operated by a 2 H. P. motor, Figure 1. The mill was strapped to the floor joists beneath overhead bins to permit gravity to conduct the grain to the mill. A large drygoods box on wheels was used as a feed truck and placed beneath the mill to receive the ground grain. The first year Mr. Haynes ground 22 tons of grain at a cost for current of $13.20. Formerly he transported all his grain a distance of three miles and paid a custom fee of $2.00 per ton. His cash saving alone amounted to $30.80 which is more than some farmers pay for a year's electric service. Mr. Haynes also used the 2 H. P. motor to operate a milking machine. His daily routine is to change the belt from the milker to the grinder after the morning milking and to have the grinder operate while he eats breakfast. About one hour of operation grinds sufficient quantity for a day. The 3 H. P. gas engine that formerly ran the milker required $48.00 worth of oil and gas a year. The motor requires 540 kw.-hrs. to do a better job and effects a saving of $31.68 a year. The two jobs by the same motor result in a cash saving of $62.48, not including the time saved or the conveniences.

Mill Giving Satisfactory Service

Mr. Walter Carven, a large dairy and poultry farmer, has had several years satisfactory service with a No. 6 burr mill operated by a 1 H. P. motor, Figure 2. In this installation the motor also operates a bucket type elevator to overhead bins. The ground grain drops into a stationary feed bin in the feed alley of the dairy barn. The Carven home has running water, electric range and refrigerator and the electric bills are paid by the cash saved by home grinding electrically over custom mill costs. The average cost of grinding on the Carven farm is about 45 cents per ton.

William Schoff, Utica, Michigan, (Figure 3), has many uses for a 5 H. P. portable motor so he purchased a 5 H. P. hammer mill with blower attachment. This mill has been in operation over five years. Mr. Schoff raises most of his grain and feeds on an average of one ton per week. His grinding costs at the mill used to be $104.00 a year. His electric costs are now $26.00 a year, 50 cents per ton, a saving of $78.00 which practically paid for the mill in one year.

Study Your Requirements

One of the first reactions a farmer usually has when he considers grinding with electricity is that grinders up to 5 H. P. are mere toys, that they are all right for canary birds but that a good healthy cow could eat faster than the grinder could grind. It is true that for a few minutes a cow can eat faster than some of the ½ H. P. grinders can grind, but they can't do it continuously. And the smaller the outfit, the less the investment. The

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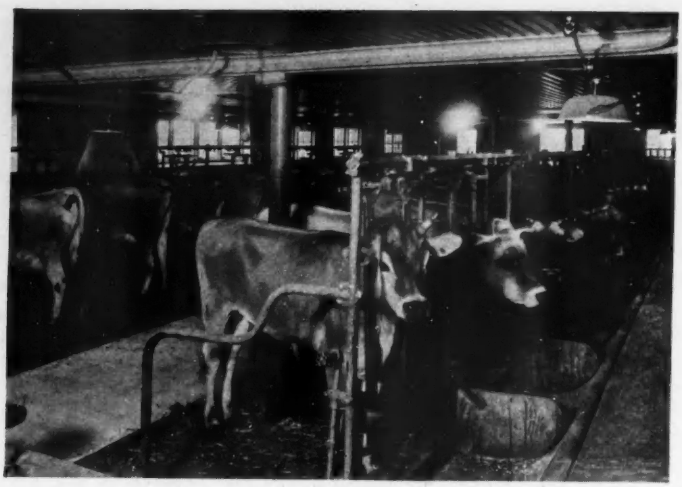
Fig. 5. Time, labor and inconvenience are associated with custom mill grinding.



The beneficial rays of sunshine can be duplicated in the dairy barn with ultra violet lights when unfavorable weather keeps the herd indoors.

IMPROVING DAIRY COWS with ULTRA VIOLET LIGHT

By C. C. PINK, D.V.M.
Oconomowoc, Wis.

DURING 1931 an installation of CX500 sunlamps were used on a herd of Jersey cattle which at the time were causing a great deal of trouble and did not respond to the methods of care and treatment used. As this herd was subject to those diseased conditions which seemed to indicate that beneficial results could be obtained by irradiation, we decided to check and observe the results. Some idea of the same can be obtained from mention of the fact that this herd advanced from low to high herd in the local milk testing association within the next two years. The use of the sunlamps was discontinued the following year with a corresponding decrease in production and an increase in infection of the cattle. It was then decided to perform the tests which are now in operation.

Vitality Reduced by Confinement

It is a well known fact that there is a great deal of vitality and resistance to disease lacking in the average dairy herd of today. This is due in part to the dairy herds being confined a large part of the time and exposed to less sunlight from about the 1st of October until the first of the following June. During this period, dairy cattle have very little, if any, exercise, and in the short time they may be out during the day, receive little benefit from sunlight. The rapid spread of infections such as tuberculosis, abortion, mastitis, etc., show the susceptibility of the dairy cow to contagion and infection. We have attempted in previous years to bring sunlight into the barn but have filtered out the beneficial ultraviolet by the use of glass. To bring the sunlight directly into the bar aids materially in improving health, sanitation and production.

In the production of milk a cow gives up most of the food elements necessary to life. This persistent drain is augmented by the formation of an offspring each year. During the period of lactation, a method of feeding is used to arrive at the highest point of production possible. The foodstuffs used are known to be lacking in mineral content, chief of which is available calcium. We passed through a period during which we tried to substitute or regulate this deficiency by mineral feeding.

The concentrated form of its composition may have been of some value but the type of energy necessary for its assimilation was not added. It was an attempt to balance the ration of the dairy cow and no doubt has some value. The attempt to supply Vitamin D is also being tried by the feeding of irradiated foods, fats and oils. A comparison of results seems to favor, beyond argument, the successful irradiation of the cow and the added benefits and lower cost of this method.

In conducting some tests under the guidance of the Incandescent Lamp Department of the General Electric Company, it has been my privilege to observe the beneficial results produced by the application of ultraviolet sources in dairy herds. Other methods of application were tried previously

Stronger herds, capable of increased production, are reported by dairymen who have conducted the irradiation tests.

and are being used now. The method in some of these was to suspend the ultraviolet source above the animal's back. Little, if any, absorption takes place in this manner. The skin and hair absorb too small an amount in this application to be of much value.

In the tests we have conducted, the ultraviolet sources have been suspended over the head of the animal. The belief and purpose of this method was that the bare and sensitive tissues of the region of the head would more readily take and absorb the beneficial rays. Our results have proven this theory. In the first series of tests conducted over four years ago, a weaker source of ultraviolet was used than that which we have now found to be the most efficient and practical. The costs of installation and operation have been shown to be surprisingly low, in comparison to the benefits derived.

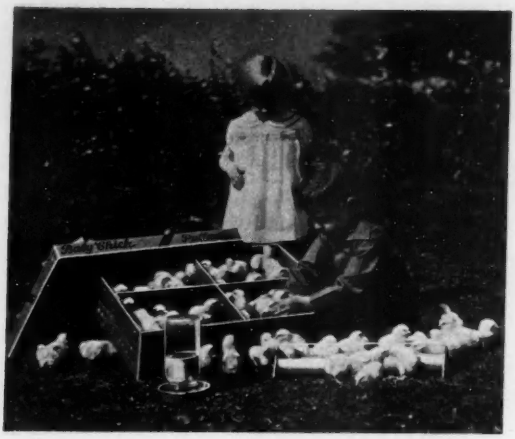
Health of Herds Improved

At the present time there are five herds being irradiated which are well into the second year. The results can be shown by statements from the owners which indicate average gains of from $240.00 to $1,450.00 for the first year, due to increased production. Their estimates of the reduction in losses are from $10.00 to $40.00 in the grade animals and $50.00 to $90.00 for purebreds. Veterinary services have been required only three times on the five herds during the past eighteen months where formerly it was not unusual to make this many calls to each herd in one month. I have been the attending Veterinarian for all of them for the past ten years. They were selected as being of average type of dairy farm herds, operating under practical conditions and producing a good grade of milk. The infection present at the time of installing the sun lamps varied in degree, in type and in intensity. Under ultraviolet treatment production increased, butter fat content of the milk increased and bacteria count decreased, disease decreased and other benefits were derived.

The conclusions arrived at were from the comparisons of tests on seven different test herds. In each there was a definite change for the better in the condition and health of the animals due to ultraviolet application. Comparisons checked and proved difinitely beneficial results, which were not looked for at the beginning. A practical and profitable means of the use of ultraviolet during the months when it is most needed has been demonstrated by the tests.

Experience has proven that the sensitive tissues of the head region absorb the beneficial rays of the ultra violet light more readily than other parts of the animal's body.

BROODING CHICKS IN KANSAS



Electric brooding will give the new arrivals an equal start.

By THOMAS B. AVERY

THE continued extension of electric power lines in rural communities has increased the demand for electric energy as a source of heat for brooding chicks. The interest manifested in this subject by poultry producers, prompted the Department of Poultry Husbandry, and the Department of Agricultural Engineering, of the Kansas Agricultural Experiment Station, to jointly conduct the investigations here reviewed.

The objects of the experiment were: (1) to determine the comparative efficiency of the electric brooder with other types such as the oil and coal-burning brooders, (2) to determine the cost of operation of each brooder, and (3) to determine the relative effect on the chicks.

All work was conducted at the college poultry farm in colony brooder houses. Four shed roof houses, each 10′ x 12′ in size, were used. Sanitary runways (wire enclosed porches) 10′ x 10′ in size, were located in front of each house in order that the chicks might have the benefits of the direct rays of the sun and outdoor air without coming in contact with the ground. The four houses were of the same construction, and contained the same equipment, except for the type of brooder used.

The houses were numbered 13, 14, 15, and 16. An air blast oil-burning brooder with a rated capacity of 500 or less chicks was placed in house 13. An electric brooder with a rated capacity of 350 chicks was placed in house 14. House 15 was equipped with a coal-burning brooder with a rated capacity of 350 chicks, and in house 16 was placed an electric brooder similar to the one in house 14, but was provided with an insulated floor under the hover.

One thousand Accredited White Plymouth Rock baby chicks were purchased for this experiment. The chicks were divided into four groups of 250 each. Average weights were obtained for each lot, after which the chicks were placed in the brooder houses. The same well balanced ration

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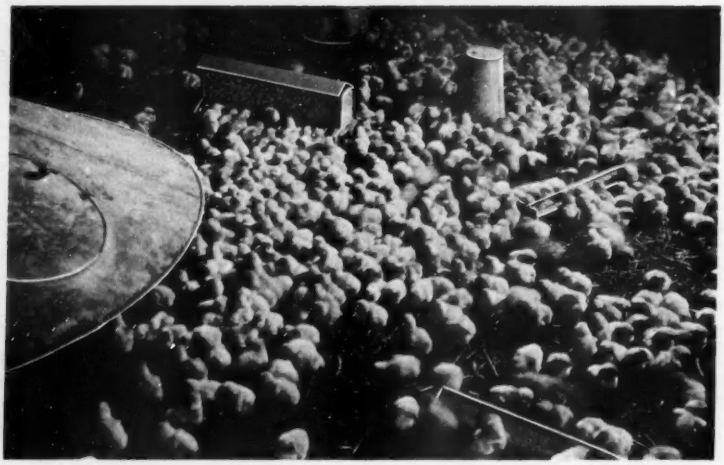


Baby chicks soon learn to appreciate the electric brooder.

JUST NOW
ELECTRICITY
IS THE MODERN FUEL

By VERA B. MEACHAM

JUST now I am cooking with electricity. Perhaps I will be burning sunshine to get breakfast when I am a hundred and one. There will be new fuels, no doubt. But it does not seem as though I would find even harnessed sunlight cleaner, more convenient, or easier to measure for cooking than electricity is today. And cleanliness, convenience, and ease of control are qualities we need in a modern fuel.

When it comes to fuels I am all for being modern. I treasure old chests, old chairs, and pine tree coverlets for part of my house, but like most women, I lose my taste for antiques in a hurry when I go out in the kitchen. Nor can I see anything inconsistent in that. A maple highbacked windsor or a walnut drop-leafed table make a definite contribution to pleasant living. My old fashioned wood-burning, ash sifting, temper raising kitchen stove didn't really do that.

"Contrariwise," as Tweedledum says.

When I began housekeeping, I cooked on a little low cook stove with one corner propped up with bricks to make the oven even. I stoked the fire with dry wood, green wood, and corn cobs.

Left: Cooking on top of the stove.

Above: Setting the clock to turn on the current. Dinner is in the oven.

Below: Cooking with electricity is convenient.

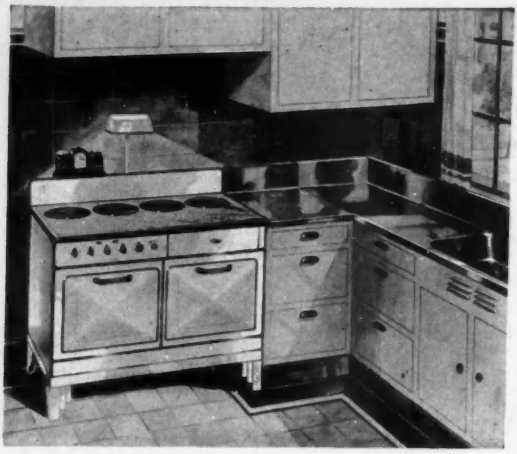
I cooked for threshers and I learned to make bread that would satisfy my mother-in-law. But that stove was dirty, and hot, and temperamental.

Goodness knows I wasn't what the neighbors call a born cook. I had to learn laboriously, by studying cookbooks and practicing over and over again. Sometimes I was good and sometimes I was bad. In the latter case I laid it to the weather, the grocer, or the stove, impartially, as I remember now.

Somehow I do not recall dragging them in to celebrate my successes, though. I guess I must have claimed those as my own.

Anyhow since I have been cooking with electricity I am quite willing to believe that never before since pigs became pork roasts has there been so perfect a fuel for cooking.

Think how convenient it is! I do not have to carry it in; I do not have to clean up after it. Unlike my grandmother I do not feel that I am not doing my duty by my family if I am not working at a jog trot from morning to night, getting three meals, sweeping up the house, mending a basket of clothes. Like the rest of you I have become something of an expert in doing away with unnecessary work. And I certainly put car-



You cook with electricity in a stove of modern design.

rying wood, building fires, and emptying ashes in that category. Anyway I have none of that to do since I began cooking with electricity.

The stove it burns in is covered with white enamel as clean as my dishes, and trimmed with chromium that defies stain and tarnish. I can always have a fire the instant I want it. There is no heat going up the chimney nor wasted about the room, for the heart is in a burner under the dish that holds my food, or it is shut up in a thick walled oven.

I measure out the heat for my oven by setting a pointer on a dial, and turning on the current. An automatic control at one side of the oven sees that the temperature is right. If I set the pointer at 400 degrees, the current will stay on until that heat is reached. Then with a little click the control snaps the current off. It will turn on again and off as often as need be to keep the oven hot.

I have a friend who has a clock control on her range that will turn the current on for her at four to start cooking the dinner she made ready in the morning and shut up in the insulated oven before she went off to town. When she gets back at five-thirty or six, everything will be cooked and ready to put on the table piping hot.

Clean, Efficient and Serviceable

There is something clean and efficient and serviceable about the very looks of my electric range. I am glad that we have stopped thinking that a stove has to be just a stove set off somewhere by itself as it used to be in the days when we put asbestos behind it, and a zinc beneath it to keep the roaring fires from charring the walls and burning holes in the floor.

Today stoves look like very neat, trim cabinets with drawers and shelves beneath the oven and the cooking top to house necessary pans, the spoons, knives, and the spatulas we use at the stove. The oven is so well insulated that the heat stays inside; the surface burners are so constructed that the heat is thrown up into the food in the kettle on top. So there is no reason why an electric range cannot be, in fact it often is, built right flush with the counters and cabinets in the kitchen. It is modern in design as well as operation.

Which is as it should be, of course.

A long time ago a famous tooth paste manufacturer made a great to do about the fact that he couldn't improve his toothpaste so he must perforce improve the tube. I do not see how folks can do much tinkering with this modern fuel, electricity. It is now as clean as sunlight. To use

(*Continued on page 22*)

The electric stove of today is neat in appearance, trim cabinets with drawers and shelves beneath the oven and the cooking top to house pans, spoons, and other cooking equipment. Also note that they are built in flush with the counters and cabinets in the kitchen.

ELECTRICAL HOUSEKEEPING

Conducted by GAIL MEREDITH

EASY IRONING

To do the pressing.

WHEN you sit down to iron, you are going at a hard, hot job the easiest way. Perhaps you think you cannot iron sitting down, but of course you can with an ironing machine. Other women do. And other women find the ironer makes the job shorter and easier.

Because of course it takes less effort to sit down instead of standing to do the work, to push a button, move a lever, or just touch a handle instead of lifting an iron hundreds of times and pushing it for miles over sheets and pillowcases, pajamas and dresses.

On the machine a motor turns the roll and automatically applies and releases the pressure between the hot shoe and the roll or buck. It is not hard work to guide clothes through the rotary ironer or to spread them out for the flat plate machine to iron.

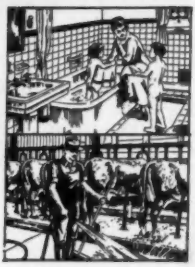
It is bound to take less time to do the ironing on a machine. The difference will vary with the clothes in your laundry basket and with your own

You need only touch the handle. The motor supplies the power.

You know It Will Pay You

RUNNING WATER — YOUR FAMILY DESERVES IT

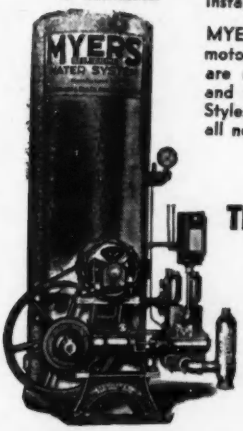
MYERS Water System



AS a modern farmer, you know that running water in the house, barns, feed lots and outbuildings pays, not only in comfort, convenience and health — but in actual dollars and cents as well, through increased production and better protection. You know the wonderful reputation of MYERS Water Systems. You have heard of the remarkably low prices at which they are now selling.

Water systems are one of the first improvements for which money may be borrowed from the Government under the Federal Housing Act. See your Myers dealer for information.

Why not, then, do the logical thing? Fill out the coupon today and find out *how little* the proper MYERS Water System will cost you to install.



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skill. You will need practice for the shirts and dresses, but you probably had to learn to do them quickly and well with a hand iron. This is a like

This little ironer can be tucked away in a cabinet all its own.

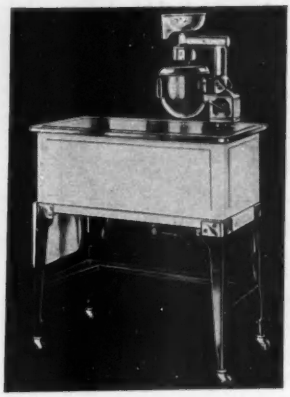
problem, only an easier one, because it can be worked out while you are sitting in ease and comfort before the machine.

When you start out to shop for an ironer, the first thing to look for in either a rotary or presser machine is good strong construction, and the name plate of a reliable manufacturer.

Examine Construction of Ironing Plate

The curved shoe or the ironing plate should be made of some material that will neither stain nor rust, not scratch. The shoe should be so hung that you can readily move it away from the roll to clean it. It should be far enough from the roll so you can arrange the clothes for ironing without touching the hot shoe.

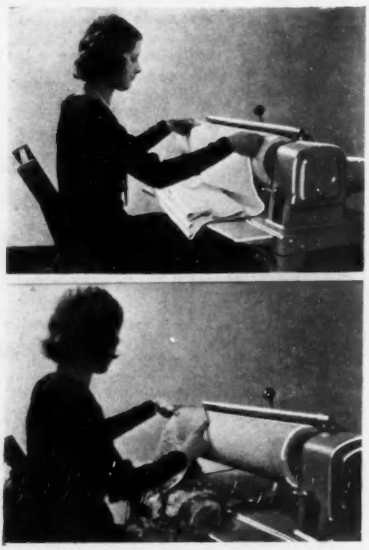
The heat should be distributed evenly throughout the surface. There is an exception to that in some shoes. There the manufacturers have designed the wiring so the parts that are used most are hotter than the rest. In any case there should be enough heat so you can dry the clothes with a few trips through.



The table covers the ironer and a mixing machine, operates from its motor.

Some machines have automatic heat control you can set as you do on the automatic irons. Some have two thermostats that may be set individually to control the temperatures in both ends of the ironing surface. With this heat control, you can be sure of having the ironing temperature you need for different fabrics.

The roll or the buck on a good machine is evenly, thickly padded. Many are built with openings for ventilation; that assures the rapid escape of the steam and keeps the padding from becoming soggy and packed. For your convenience in ironing garments that cannot be spread out flat, the roll should have one open end.



Upper: The flat things roll through quickly. Lower: Learning to iron a house dress.

The Controls Are Important

The controls that start the motor and apply the ironing pressure come next in importance. When you sit down to study a machine, make sure that you can reach them easily. See if they respond instantly and effortlessly to your touch. They do on well designed ironers. Look for a pressing control that will let you hold the shoe still over pleats or thick woolens. This is a help when you are ironing heavy damp table cloths as well as when you are actually pressing.

The safety release is an important part of the iron. If it is not automatic, it should be in plain sight, and in easy reach, and it should operate quickly.

Many of the machines have a table top cover that shuts out dust and makes of the ironer a useful piece of furniture seven days a week.

When you get the ironer home, learn to take it easy with your ironing. You will find doing the flat work simple enough. For the rest spend some time studying the booklet given you by the manufacturer. It will tell you just how to go about ironing a shirt, the children's dresses, a pair of pajamas, or rompers, how to press suits, and how

to handle sheets and table cloths most satisfactorily.

Don't let the machine fluster you. If it seems to be running away from you, going too fast for you to keep up, just at first, stop it and start over again. If you will do this, you will soon learn to relax and let the machine do the work.

• • •

A SALAD FOR ALL

Jellied vegetable salad.

EVEN though you have pulled up most of the garden, you cannot stop having salads, can you? Here is a jellied vegetable salad you can make in little individual molds—a jelly glass is a nice size—in a ring, or in one of your oblong pyrex dishes. This recipe comes from the Bureau of Home Economics of the United States Department of Agriculture. They think the blend of flavors is exceptionally good. But any cook knows she can add this or change that in a salad and still come out with honors even. The jelly powder base can be omitted and meat stock stiffened with plain gelatine can take its place. That sounds particularly good, I think.

½ cups lemon jelly powder
2 cups boiling water
½ cup diced cooked turnips
½ cup chopped celery
1 cup green peas (cooked)
1 No. 1 can red kidney beans
½ tsp. salt

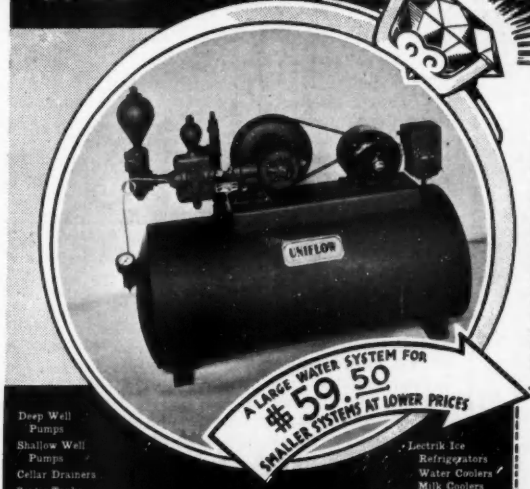
Dissolve the jelly powder in the boiling water and set aside to chill, says the directions. When the mixture begins to stiffen, add remaining ingredients. Mix carefully so as not to break the vegetables. Turn into molds and chill. Remove to a bed of lettuce, or endive. Garnish with mayonnaise dressing.

A Useful Bucket Elevator

A SMALL capacity bucket elevator that will lift grain 10 feet may easily be driven by a ¼-horsepower electric motor. It can be made from two 1 x 12-inch boards and two 1 x 6-inch boards forming a rectangular housing in which a four-inch four-ply rubber belt fitted with 3½ x 3-inch galvanized iron elevator buckets is used for elevating the feed. The materials required for the construction will be found in the following list:

The elevator may be supported by a cross made of two, 2" x 6"'s two feet long, as shown in the

the GEM has Everything



It's new — it's complete. It is the "Gem of Gems" of shallow well water systems. Sturdy, attractive, quiet operating (mounted in rubber) and complete in every detail—it has everything. "Gem 30's" are assembled and shipped in one crate ready to install.

The "Gem 30" is a step ahead of the field. It is a large water system at a low price—thoroughly guaranteed.

UNIFLOW water systems are approved by F.H.A., the Government Agency insuring loans and purchases of UNIFLOW equipment.

1. 300 gal. per hour Shallow Well Pump
2. Repulsion Induction Motor
3. Silent Operation (mounted in rubber)
4. 30 gal. galvanized Tank
5. Air Volume Control
6. Pressure Gauge
7. Automatic Pressure Switch
8. Automatic Overload Relay
9. Relief Valve
10. Completely assembled in one crate

Deep Well Pumps
Shallow Well Pumps
Cellar Drainers
Septic Tanks
Water Softeners
Klarifiers
Beer Pumps

UNIFLOW MFG. CO.
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Lectrik Ice Refrigerators
Water Coolers
Milk Coolers
Bottle Beverage Coolers
Draught Beer Coolers

( ) Send complete data on the "Gem 30"
( ) Send complete data on refrigerated milk coolers
( ) Send your data on the following products:

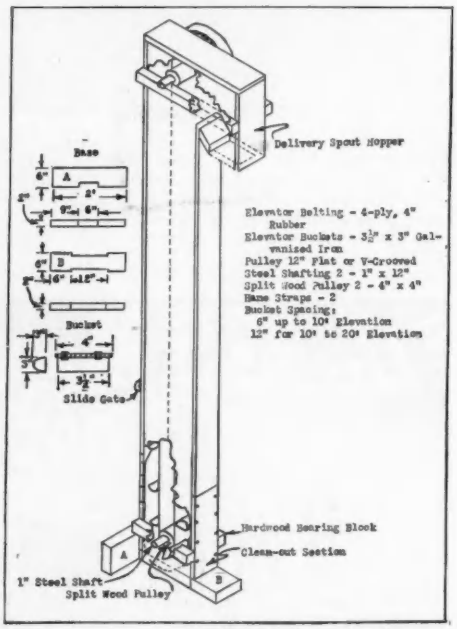
Name _____
Address _____
City _____ State _____

Materials and Use

Name	Amount	Dimensions	Materials	Use
Lumber	2	1″ x 12″ 12′ to 14′	Clear white pine	Sides
Lumber	2	1″ x 6″ 12′ to 14′	Clear white pine	Ends
Lumber	2	2″ x 2″	Hardwood	Bearings for elevator shaft
Lumber	2	2″ x 2″ 14″	Hardwood	Bearings for elevator shaft
Lumber	1	2″ x 6″ 4′	Douglas Fir	Elevator base
Belting	22′-26′	4″ - 4-ply	Rubber fabric	Elevator belt
Elevator bucket	48	3½″ x 3″ Spaced 6″ to 12″ on centers	Galvanized iron	Cups
Pulley	1	12″ x 21/37″	V-grooved or flat	Elevator drive
Pulleys	2	4″ x 4″	Split wood	Drive and idle for elevator belt
Sheet iron	1	4 sq. ft.	Galvanized iron	Boot and hopper
Shaft	2	1″ x 1′	Cold rolled steel	Belt bucket shaft

drawing. Two 4″ x 4″ split wood pulleys are used on one-inch cold rolled steel shafting to support the elevator belt. Hardwood blocks are used for shaft bearings, and the top shaft is fitted with a 12-inch V-grooved or flat pulley for the belt from the motor. For elevations up to 10 or 12 feet the elevator buckets should be spaced on six-inch centers. For elevations above this and up to 20 feet, 12-inch spacings should be used.

A slide gate should be provided at the base of the elevator to regulate the discharge of feed or grain from the elevator boot. A four-inch strip of galvanized sheet iron should be curved to form an arc at the bottom of the elevator housing, allowing about a ¼-inch of clearance between the edge of the cups and the surface of the iron. The delivery spout may be formed from galvanized iron and supported by an extension of the upper shaft bearing. This elevator will be useful for handling ground feeds or for use in connection with the automatic grinding, elevating, and mixing equipment operated by a small electric motor.


Base
Delivery Spout Hopper
Elevator Belting - 4-ply, 4" Rubber
Elevator Buckets - 3½" x 3" Galvanized Iron
Pulley 12" Flat or V-Grooved
Steel Shafting 2 - 1" x 12"
Split Wood Pulley 2 - 4" x 4"
Hame Straps - 2
Bucket Spacing:
6" up to 10' Elevation
12" for 10' to 20' Elevation
Bucket
Slide Gate
Hardwood Bearing Block
Clean-out Section
1" Steel Shaft
Split Wood Pulley

Construction details and diagram of bucket elevator.

Ask your dealer for details about the Deming Easy Payment Plan.

● **DECIDE NOW** to enjoy the convenience and comfort of RUNNING WATER in your home! But be sure to investigate the Deming "Marvelette" Water System before you invest! ... Point for point and dollar for dollar, the "Marvelette" will give you the greatest VALUE obtainable.. Write today.. NOW.. for FREE Catalog. No obligation.

"Running Water.. Your Family Deserves It!"

THE DEMING CO.

1002 BROADWAY • SALEM, OHIO

Pump Manufacturers Since 1880

Then there was the man who gave up drinking for the sake of his wife and kidneys.

Brooding Chicks in Kansas

(*Continued from page* 10)

was fed all four lots, while they received the same care and management throughout the experiment.

As a result of this experiment certain definite conclusions can be drawn in regard to the three types of brooders used. Convenience is a point which cannot be overlooked, and this seems to be one of the greatest advantages in using an electric brooder. An electric brooder requires very little time to install and regulate, as the brooder can be put in place and the proper thermostat adjustment made in from one to two hours. However, chicks placed under the electric brooder require careful attention for the first few days. They must be trained to go under the hover for warmth and feed should be placed under the hover until the chicks have learned to eat. After the chicks have once learned to eat and hunt the hover for warmth, the electric hover requires very little attention. It was found the average amount of time per day that was required to care for the different lots was: 23.3 minutes for the oil brooder group, 24.6 minutes for those under the coal brooder, and only 15.3 min. for each of the electric lots. This represents the actual time required to care for the chicks, and does not include the noon inspection or the trips made at night to refuel the coal stove.

Each of the four lots consumed the same amount of feed, but results show that the chicks brooded with the electric brooders weighed an average of 1.24 lbs. per bird, while those brooded with the coal and oil-burning brooders weighed 1.17, and 1.23 lbs. respectively at the end of the eight weeks period. The average room humidity for the electric brooder was approximately ten per cent higher than that for the coal or oil-burning brooders. This did not materially affect the rate of feathering in the different lots, but did necessitate more frequent cleaning of the litter in the electric brooder lots. However, this was not a serious problem except during extremely damp weather.

Electric Brooding Cost Less

Under temperature conditions existing in this test, the cost for electric current at 3 cents per kilowatt hour was slightly more than coal, about the same as distillate, and less than kerosene would have been. When the labor of taking care of the brooder is added to the fuel and energy charges, the electric brooders cost less than either of the other types. Results show the largest amount of energy was used during the day time. When chicks are under the hover at night their body heat helps maintain the proper temperature. Careful attention to lowering the hover during the day time and raising at night will save energy as well as being better for the chicks. A green or red attraction light of 15 to 25 watts should be used under the electric brooder at all times.

Although both the electric brooders gave satisfactory results it was shown that a well insulated house with a double floor is very desirable.

Infallible Cure

"Here's a woman suing for divorce on the grounds that she was in a trance when she was married."

"Well, if married life doesn't bring her out of it, divorce won't."

—*V. P. I. Shipper.*

Grinding with Electricity

(*Continued from page* 17)

amount of electricity used per ton of grain is about the same whether the motor is large or small, only it takes the smaller motor longer to do the job. Figure 4 is a good illustration of a midget unit on a real job. This little outfit has a capacity of 150 pounds of mixed grains per hour and for four years has been grinding about three hours a day for 50 cows.

The main factor to consider in buying an electric grinder is whether or not it will grind satisfactorily. The element of time doesn't matter; there are 24 hours in each day and all the mill requires is a supply of grain from an overhead bin. It will do its work equally well whether an attendant is there or not.

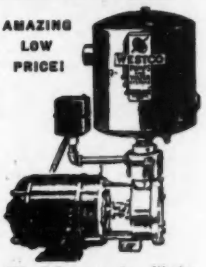
One of the disadvantages of the small mill according to some farmers is that it will not grind ear corn. On the other hand, why grind ear corn? It takes about four times as much power to grind 100 pounds of cobs as it does 100 pounds of shelled corn, and then after it is ground it is worthless as a feed. It does put bulk in the ration but good legume hay is much better.

This winter a large percentage of the home grown grains will be fed on the farm in the form of ground feed. The grinding will be done for profit. Increase the profits of both your electric service and grinding by combining the two together.

THIS ELECTRIC PUMP HAS ONLY ONE MOVING PART!

NO NO NO NO

AMAZING LOW PRICE!



WESTCO—world's simplest electric pump has only ONE moving part. And, it operates *without metal-to-metal contact.* Nothing to wear and get out of order.

To ground floor or basement faucets, Westco pumps 38% more water than its rated capacity *without using extra electric current.* 28 ft. suction lift. Bronze Liners assure lifetime service from pump casings. Rust-proof throughout. Quiet. Cheap to operate. Thousands of satisfied users. Sold on MONEY-BACK GUARANTEE.

275 Gals. per hr. Westco. Others up to 3000 Gals. per hr. Larger tanks available.

Fill in coupon below and mail today for FREE colorful Catalog. WESTCO PUMP CORP., Davenport, Iowa. Branches coast to coast.

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A Homemade IRRIGATION SYSTEM

By C. E. Hanson

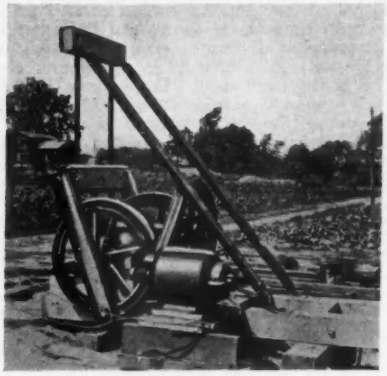
Irrigation has become an indispensible asset to farmers in many sections of the country; automatic water systems are reasonably priced.

DUE to the scarcity of rain during the growing season of 1933, Mr. Leonard Meyer, residing six miles north of Grand Rapids, Michigan, on M37, faced the danger of a large loss in quality and yield from his five acres of tomatoes, melons and peppers. To save the crop meant but one thing. He would have to irrigate.

To irrigate properly an area of this size, the capacity of the well should be between 2,000 and 3,000 gallons per hour. In order to get such a supply of water it was necessary for Mr. Meyer to drill a well 35 or 40 feet deep.

Setting Up the Pump Unit

A pump to fill his requirement would have cost from $350.00 to $450.00, which was more than he could afford under present conditions. For this reason he decided on a homemade irrigation system. A pump was built from parts of an old Ford truck, an old gasoline engine, some iron piping and wooden beams. A worm gear differential from a Ford truck was used to obtain the speed reduction. The rear axles were shortened and machined to the proper size to fit a pair of gasoline engine flywheels. Pitmans were attached to the rims of the flywheels to drive the pump rod. The belt pulley was attached to the drive shaft after it had been shortened enough to just clear the flywheels.

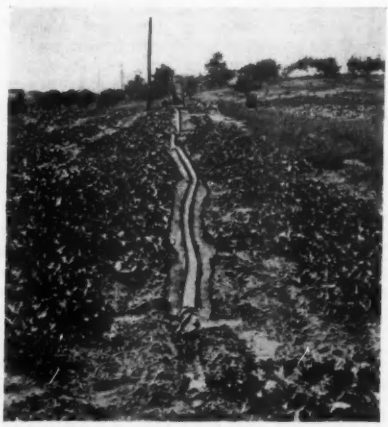


A 3 H. P. electric motor furnishes the power for Mr. Meyer's irrigation pump.

The pump operates at about 30 strokes per minute. It has a stroke of 24 inches and is driven by a 3 h.p. electric motor. The pump is very strong and durable, the roller bearings and gears running in oil.

Canvas Hose System Used

The water is applied to the field with the porous canvas hose system which Mr. Meyer also made by cutting bolts of 8-ounce canvas into strips and sewing them together.



The hose used to distribute the water to the field is made of canvas sewn into strips and through which water readily seeps.

AMAZING PRIME-CONTROLLED

ELECTRIC ONE WIRE FENCE

Now you can use the world's cheapest, most effective livestock fence. This Prime Controller, plugged into 110 a.c. or 32 d.c. light socket gives bare wire a harmless kick with a patented "off and on" current. Livestock won't go over or under it. Four years' experience prove it.

PRIME

PROVED SAFE by thousands of farmers

Don't try to use electric fence unless you use the PRIME CONTROLLER. It is the one, proved absolutely safe way to electrify fence. One controller operates 4 miles of Electric Fence for 10c per month. Positively harmless—stings stock, gets their "goat," but cannot hurt them. This means you can have all the fence you want at 4c to 8c per rod. Easy to put up—fence in part of a field or pasture for hogging down corn, rotating pasture, feeding off, etc. Saves cost on first field you fence. Thousands of farmers now using it successfully. Ask for names in your locality.

SAVE 10 TIMES Its Cost In One Year

Save wire. Save posts, use stakes. No gates, use snap. 30 days' trial at our risk—satisfaction guaranteed or money back. Write for full information to

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ON THE AIR

Conducted by JEROME J. HENRY

Time Is Important

THE split-second schedule under which programs are conducted on the CBS network was reflected recently when a large sign appeared over the clock in the communications room. The sign read: "This clock is one second slow." The importance of this knowledge to the wire room men may be understood when it is explained that CBS stations, from coast to coast, depend upon them for last minute "cues" on those programs involving switchovers from different cities. A second's difference in time might mean some "dead air" over the network.

Cyril Pitts, popular radio tenor, and Morgan L. Eastman, Conductor, who, when he isn't conducting an orchestra, indulges his hobby of boating.

• • •

Tight Spots for Radio Artists

CAN you make up your mind in a split second and, as they say in the radio world, "go on cold"? If so, you may have your chance on the air. Many artists have obtained their "first break" by performing well in an emergency.

Saundra Brown might be classed as one of those. She is the new brunette personality singer whom you've been hearing over CBS stations recently. While tennis matches were being broadcast she was sitting in the studio thinking about her first program on the network. Suddenly a production man popped in. A heavy rain had turned the tennis courts into a pool of water and left the network with 15 minutes of "dry air." "Come on, Saundra," cried the production man. And before Saundra could say yes or no she found herself before a live microphone with a control engineer giving her the signal to sing. In the excitement of the moment, Saundra forgot all about being worried about her debut on the network. Her first experience was very successful and showed not the slightest bit of fright.

Bob Trout is quite as ready to save his radio audience from disappointment like the diminutive Dutchman who thrust his finger into the fabled hole in the dike to save all of Holland from inundation. Assigned to "cover" by boat the baptism ceremonies of Elder Michaux in the Potomac in 1933, he was unable to get any of the converts to come to him for interviews. Bob promptly stepped overboard and went to the converts.

One afternoon while working with "California Melodies," Virginia Verrill, just through with rehearsal, sat powdering her nose and thinking of the inviting outdoors. Quite unknown to the singer, an artist was taken ill in another studio where a program was in progress. Notified of the predicament, Virginia hurried into the distraught studio to sing whatever came into the mind of the accompanist.

The radio woods are full of artists whose quick wit has saved the day at one time or another. Johnny Green, playing an engagement in Minneapolis, discovered one minute before a scheduled broadcast was to go on the air that there wasn't a single chair or music rack in the studio for his orchestra. Instrument cases were promptly pressed into wobbly service for seats while the rear exposure of coat collars served as racks for the music. Green doesn't say how the front row musicians made out.

The radio artists find uses for their heads in rehearsal periods too. Raymond Paige, orchestra director, was working in Los Angeles when the recent earthquake started the studio mikes swinging. Unwilling for his group to add in any way to the confusion of the outer corridors, he kept

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STEWART

ELECTRIC

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Clipped cows give cleaner milk, better milk with lower bacteria count. Quickly cleaned by simply wiping with damp cloth. Good dairy practice requires cow clipping. Some states demand it. Clipmaster is the fastest, coolest, easiest-to-use clipper ever made. Smaller **EASY-GRIP** handpiece only 2 inches thick contains **powerful** motor. Perfect balance. Air-cooled. Ball-bearing. Only $16.95 for 110 volts AC or DC. Other voltages $2.00 additional. Slightly higher West of Denver. At your dealer's or send $1.00. Pay balance on arrival. Send for FREE catalog of Stewart electric and hand-power Clipping and Shearing machines. Made and guaranteed by Chicago Flexible Shaft Co., 5524 Roosevelt Road, Chicago, Ill. 45 *Years Making Quality Products.*

them steadily playing. Plowing through number after number, a perspiring bassonist finally asked, "If the building falls will you give us a 5-minute intermission?"

• • •

Radio Briefs

ONCE a period purely agricultural, the National Farm and Home Hour now embraces comedy, music, drama, market news, and many educational features.

One of the youngest actors ever to read a role before a microphone is Richard Svihus, who made his debut in One Man's Family at the age of four. He reads words of three syllables without hesitation.

Male musicians as a rule are a bad lot. They kick up more dust than a stage full of chorus girls. There are union complications, wage disputes, jealousy, and a dozen and one other petty problems in conducting an orchestra, says Victor Young, popular radio conductor.

What is described as the craziest office in New York is that maintained by Arthur Fields and Fred Hall, NBC entertainers. A parrot and a bowl of

(*Continued on page 22*)

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SUPER-SPEED ELECTRIC RANGE UNITS

HERE'S COOKING SPEED!
Is the favorite "top-burner" in your electric range slowing down? Replace it with a speedy, long-lasting, flat-top Chromalox Super-Speed Unit. It will fit your range. Ask your power company or dealer, or write us for details.

EDWIN L. WIEGAND CO., 7560 Thomas Blvd., Pittsburgh, Pa.
ASK YOUR POWER COMPANY for a FREE TRIAL

Under The CHESTNUT TREE

Why He Failed

A beggar clutched at the sleeve of a benevolent looking passer-by.

"Five cents, sir, for a cup of coffee?" he whined.

The other turned and surveyed him.

"Why should I give you five cents?" he asked. "What brought you to this sad, unseemly plight?"

"A terrible catastrophe, sir," the beggar replied. "Two years ago I, like you, enjoyed business prosperity. I worked industriously. On the wall above my desk was my motto: 'Think Constructively, Act Decisively.' Wealth poured my way. And then—and then—"

"Yes—and then?"

The beggar's frame shook convulsively.

"The scrub lady burned my motto!" he sobbed.

Erosion

Hordes of gullies now remind us
We should build our lands to stay,
And, departing, leave behind us
Fields that have not washed away.
When our boys assume the mortgage
On the land that's had our toil,
They'll not have to ask the question
"Here's the farm, but WHERE'S the SOIL?"

T. V. A.

The Viewpoint

Boss: "You ask high wages for a man with no experience."

Applicant: "But it's so much harder work when you don't know anything about it."

—*Annapolis Log.*

Of Course Not!

Interviewer: "What have you to say about anonymous letters?"

Professor: "They're stupid! I read them but I never answer them."

—*Pitt Panther.*

Plan

To be a success a plan must be intelligently carried out.

"Try this pill at bedtime," said the doctor. "It's a new treatment. If you can keep it on your stomach it should cure you."

Meeting the patient several days after, the doctor asked, "Did you manage to keep the pill on your stomach?"

"I did when I was awake," said the patient, "but when I fell asleep it rolled off."

Hint

The slowness of some people to take a hint is more than exasperating.

A Scotsman paid a visit to a friend in London, but stayed far longer than was expected. Time dragged on, and still the visitor from the North made no attempt to leave. At length the friend dropped a gentle hint.

"Don't you think," he said, "that your wife and children would like to see you again?"

"Thanks verra much," was the answer. "It is most awful kind of you. I'll send for them."

Training

The man was trying to sell his dog.

"You see," he said, "I bought him and trained him myself. I got him so that he'd bark if a person stepped inside the gate, and I thought I was safe from burglars. Then my wife wanted me to train him to carry bundles, and I did.

"If I put a package in his mouth the dog would keep it there until someone took it away. Well, one night I woke up and heard movements in the next room. I got up and grabbed my revolver. Two men were there—and the dog."

"Didn't he bark?" interrupted the man.

"Never a bark; he was too busy."

"Busy? What doing?"

"Carrying a lantern for the burglars."

Questions and Answers

Conducted by H. J. GALLAGHER

Shock from Ground Wire

Question: *Can you get a shock from a ground wire?*

Answer: It is possible to get a shock from a ground wire that is poorly grounded. Electricity will always take the path of least resistance to the ground, and if the main ground is not always in contact with wet earth, or if any of the ground connections are loose, a person contacting a ground wire may be in position to furnish less resistance than the established ground and, consequently, receive a shock, the severity depending upon how good a ground the person makes.

Care should always be exercised in handling wires of a 220 volt circuit. To become the ground, or even as a resistance, when standing on insulation, is very hazardous. Should the fuse on one side of a 220 volt circuit blow, this still leaves the circuit dangerous as one side is still energized and contact with the energized side would establish a 110 volt circuit to ground. I have known of 220 volt motors being installed with the motor switch in only one side of the circuit. A switch properly installed in any circuit should insure "dead" wires beyond the switch when in an off position.

Preparing for High Line Service

Question: *I have a 32 volt lighting plant, but I am going to get service from a new high line. I have two wires from the generator. How can I use these with three wires from the transformer? Will I have to rewire my buildings?*

Answer: Single phase service such as you will receive from the high line is distributed throughout farm buildings in circuits of two wires. Your present D. C. system also uses the two wire circuit so it is a simple matter to change your present system for A. C. service. The three wires coming from the transformer are to provide both 110 and 220 volt service, 110 service for lighting and household equipment and appliances, and 220 volt service for power operation. In your D. C. system, you have a positive wire and a negative, or ground, wire. In a three wire service there are two positive or "hot" wires, one on each side of the center wire which is the negative or ground wire.

WHY CUT EGG PROFITS?

FROZEN DRINKING PANS STOP EGG PRODUCTION

TRUMBULL *Automatic* ELECTRIC *Water Warmer*

Water kept at 50° F. during coldest weather. Current is used only as needed. Costs less than an egg-a-day to operate. At your dealer's, or send $3.00 and we will mail you Water Warmer, post-paid.

Write for Illustrated Folder.

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A GENERAL ELECTRIC ORGANIZATION

You be the Judge!

How easily and reasonably electricity can be applied to make farm life more comfortable and profitable is simple to seek.

Just list on the coupon below the appliances about which you'd like complete information and mail it to us. We'll see that manufacturers send you complete details at no cost and without obligation—and you can be the judge.

Please give our advertisers first opportunity to answer your questions. They are particularly well equipped to serve you.

Listed below are the leading and most popular applications for electricity on the farm:

Automatic Water Systems	Ranges
Water Heaters	Refrigerators
Clothes Washers	Dishwashers
Vacuum Cleaners	Flat Irons
Ironing Machines	Clocks
Food Preparing Machines	Milk Coolers
Ice Cream Freezers	Churns
Sewing Machines	Bottle Washers
Table Cooking Appliances	Dairy Sterilizers
Range Replacement Units	Animal Clippers
Floor Polishers	Incubators
Tea Kettles	Brooders
Milking Machines	Time Switches
Cream Separators	Thermostats
Drinking Fountain Warmers	Soldering Irons
Ultraviolet Light	Tool Grinders
Woodworking Machinery	Drills
Ensilage Cutters	Paint Sprayers
Stationary Spray Plants	Motors
Burglar Alarms	Feed Grinders
Soil Heating Equipment	Corn Shellers
Insect Traps and Screens	Hay Hoists
Electric Fencing	Feed Mixers
Light for Plant Growth	Ventilators
Electric Lawn Mowers	Radios
Septic Tanks	Sheep Shears
Vegetable Washers	Floodlights
	Bunch Tyers

FREE INFORMATION COUPON

Electricity on the Farm
24 W. 40th St., New York

Without cost to me, please have manufacturers send complete information on the following Electrically Operated Equipment which I am thinking of buying. .....

My name is .....

Address .....

.....

I get electricity from .....

.....10-35

Connecting the positive wire from the generator to either of the hot wires of the A. C. system and the negative wire to the ground wire, converts the D. C. system to an A. C. To secure 220 volt service, a two wire circuit is established by connecting to each of the two hot wires and not using the ground wire. All connections should be made in a distribution cabinet and the hot wire of each circuit should be properly fused. It is better not to fuse the ground wire as one of the rules of good wiring is that the ground wire shall be continuous from all lights, appliances and equipment on any 110 volt circuit. Do not use larger than a 15 ampere fuse on number 14 wire, or a 20 ampere fuse on a number 12 wire; the larger the wire, of course, the larger the fuse may be.

It is always a good plan to have a competent electrician inspect a D. C. wiring job before changing to A. C. Too often all of the D. C. service is distributed over one main circuit with numerous branch circuits. When converting to A. C. service some of the D. C. branch circuits should be changed into separate A. C. circuits. The ordinary farm home should have at least three or four sep arate circuits.

Can Neutral Wire Be Bare?

Question: *In running a* 110—220 *volt three wire system under ground in conduit to garage, can the neutral wire be a bare wire?*

Does an electric thermostat control on a furnace use current continuously, or only when raising or lowering the dampers?

Will a watt hour meter placed on a branch circuit back of the main meter cause the main meter to register energy when no power is used? Should the neutral wire to the meter be grounded?

GEORGE PARKER,
Huntertown, Indiana.

Answer: As far as safety is concerned, a bare neutral is all that is necessary. It is a common practice to use a bare neutral in the service conduit. There are, however, many local and occasional state rulings that prohibit the use of a bare neutral and it would be advisable to determine your local requirements before installation.

A thermostat is merely a mechanical device used to automatically open and close a circuit. It does not consume electric energy. The only time energy is being consumed on a branch circuit is during the period the thermostat keeps the circuit closed as when power is being used to open and close the dampers of the furnace.

A watt hour meter placed on a branch circuit functions in exactly the same manner as does the main meter, it merely registers the energy used on the load side of the meter. The meter itself does not consume energy. Meters on branch circuits have no effect on the main meter.

The electric watt hour meter is driven by an electric motor so designed that its speed is proportional to the volume of electric energy in watts or kilowatts flowing in the circuit to which it is connected.

There is no neutral wire to the ordinary single phase three wire meter. The two main conductors enter the meter on the line side and connect to the distribution from the load side. In case of a 110 volt meter it is necessary to use the neutral wire as all single phase circuits consist of two wires. It would not be necessary to ground the neutral wire at the meter except as the neutral is grounded at the entrance service switch.

On the Air

(*Continued from page* 20)

goldfish are included in their office equipment. They also have a telephone, but according to their word, everybody uses it except themselves. When they have to phone they must slip out to a pay station.

• • •

The Gangster's Vocabulary

MANY interesting examples of the strange vocabulary used by criminals have been uncovered by Philips Lord who writes the stirring dramatic sketches known as G-Men for broadcasting over NBC stations.

In his search for material for this interesting series he learned, for instance, that "barbed wire" is the underworld term for "alcoholic mixture," that a first class lawyer is a "swell mouthpiece," and that a "blow" does not mean to be struck but to be detected.

A "belly gun," he found, is a weapon carried on the abdomen, a "dial dump" is a well guarded house or a good hiding place.

More expressive terms in the criminal's vocabulary which Lord found were:

"Doubled up," meaning to get married; "dropper," a professional killer; "grazing ground," a good field for crooks; "ice men," diamond thieves; "kite flyer," a check raiser; "miracle man," a winning attorney; "nickel hoppers," taxi dancers.

A person who sells dope is named a "snowbird," while a bragging egotistic person is a "wind sucker."

Electricity, the Modern Fuel

(*Continued from page* 12)

it we have only to lift a hand and give a twist to a button on the front of a stove, and we can have it in any amounts we need, little or large, by simply moving a switch or changing a pointer on a dial.

"As modern as tomorrow," a salesman murmured to me the other day when I stopped to marvel at a new model on display.

Tomorrow—nothing!

I said, didn't I, that I am cooking with electricity right now?

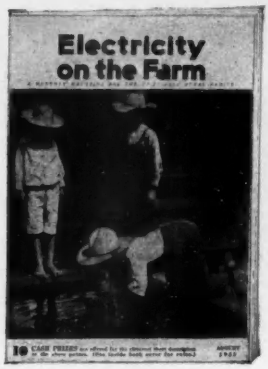
CLASSIFIED ADVERTISING

ELECTRIC POULTRY EQUIPMENT SPECIALISTS—The LYON ELECTRIC COMPANY offers equipment that has been proven practical by years of service on poultry farms in all sections of the country. The LYON line includes—BROODERS—DRINKING FOUNTAIN WARMERS—ALARMS (Burglar, Fire, Temperature, Power-Off)—TIME SWITCHES for poultry house lighting—HEATING ELEMENTS and equipment for home-made incubators and brooders Write for complete electrical catalog and brooding data. Lyon Electric Co., San Diego, Calif.

The PARAGON POULTRY TIME SWITCH is scientifically designed and approved by state universities. It provides automatic control both morning and night and DIMS THE LIGHT AT NIGHT to allow the hens to return to roost. Low price and UNCONDITIONALLY GUARANTEED. Write for full information today. PARAGON ELECTRIC COMPANY. Van Buren and Dearborn Sts., Chicago, Ill.

ELECTRIFIED FENCES reduce farm fencing costs 80%. Controllers for 110 and 32 volt current. 30 DAYS TRIAL. Write for catalogue. ONE-WIRE FENCE CO., B-11, Whitewater, Wis.

COVER TITLE CONTEST



AUGUST COVER

$20 First Prize for August Cover

"Watering 'preferred stock' on the curb."

A. H. MAYFIELD,
R. 2, Midlothian, Texas

Nine $2.00 Prizes for August

"Electricity 'the winner;'
Water, 'the runner-up'."
JOSEPH C. DANCE, R.F.D. 1, Volant, Penna.

"Making a run on running water."
OSCAR FLETCHER, R.F.D. 1, Box 24, McColl, S. C.

"Three happy farmer boys are we,
Getting pure water electrically."
MRS. CHAS. T. HOWE, Hood River, Oregon

"How cool and refreshing on a hot summer day
When water is pumped the electric way."
LEONARD H. PRANGE, R.F.D. 9, Station F, Milwaukee, Wis.

"Electric power adds its charm
To youth and 'spring' time on the farm."
MADELINE OLP, R.F.D. 1, Box 19, Ft. Collins, Colo.

"A cold drink is just the thing,
From this up-to-date electric spring."
MRS. HENRY L. WINDHORST, R. 4, Box 483, Indianapolis, Ind.

"Cooling water, fresh and pure,
Electric force to make this sure."
MRS. H. C. HENDRICKS, R.F.D. 1, Box 582, Indianapolis, Ind.

"An electric pump is just the thing,
It's way ahead of the good ol' spring."
MRS. RAYMOND HUBBARD, R.F.D. 2, Clay, N. Y.

"An electric pump is a better way
to get a cool drink on a summer day."
GRACE E. GODFREY, R.F.D. 1, Alma, Mich.

RULES
October Title Contest

Ten cash prizes will be awarded for the 10 best titles for the picture on the front cover of this magazine.

The first prize will be $20 cash, and nine second prizes of $2 in cash will be awarded.

In case of a tie, each winning contestant will receive the full cash prize to which he or she is entitled.

Titles should be brief — the shorter the better—and short slogans will be given preferences over rhymes.

All members of the farm family to whom this magazine was sent may submit titles, but each contestant may submit only one title.

Question "A" must be answered.

Entries must be sent to the Title Editor, ELECTRICITY ON THE FARM, 6 North Michigan Avenue, Chicago, Illinois, before November 1st.

Winning names and titles will be announced in the December issue.

Send your title on the coupon or make out a similar form on a plain sheet of paper or government postcard.

My title for the Front Cover picture on ELECTRICITY ON THE FARM for October is

.....

.....

(a) What new electrically-powered equipment and appliances have you obtained during the past six months?

(Please identify by brand name) .....

.....

My name is ..... *R.F.D.* .....

Post Office ..... *County* ..... *State* 10-35

ELECTRICITY ON THE FARM
24 West 40th Street
New York, N. Y.

Return Postage Guaranteed

YARD LIGHTS *for the* FARM

Time is saved and safety is assured when electricity lights the farmyard. The early-morning and evening trips from house to barn that are made every day require more than lantern light. With electricity lighting the way, the farmer has an extra hand—the one that used to hold the lantern—in which to carry things. And he can easily avoid the icy spots that cause bad falls during the snowy season.

One or two lights mounted on poles or the barn will illuminate the whole farmyard. These can be controlled by switches in both the house and barn. You'll find that adding these lights is not expensive—and that 35% of the time used in doing farm chores is saved with electric lights in barns and yards as compared with hazardous lanterns.

ASK YOUR POWER COMPANY

to explain how reasonably yard lights can be placed on your farm. These Power Company specialists will gladly help you with any electrical problem. The services of the editorial staff of this magazine are also at your command. Address ELECTRICITY ON THE FARM, 24 West 40th Street, or 6 No. Michigan Avenue, Chicago.

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